REMARKS

Entry of this amendment under 37 CFR §1.116 and allowance of the above-referenced application are respectfully requested. Claims 1 and 8 are amended, and Claims 1-12 are pending in the application.

Claims 1 and 8 stand rejected under 35 USC §112, second paragraph. The indication of informalities is appreciated. Claims 1 and 8 have been amended as suggested in the Final Action to eliminate the informalities. These amendments are purely cosmetic and do not narrow the scope of the claims. Hence, this amendment should be entered.

For these and other reasons, the §112, second paragraph rejection should be withdrawn.

Claims 1-12 stand rejected under 35 USC §102(e) in view of U.S. Patent No. 6,243,778 to Fung. This rejection is respectfully traversed. The comments submitted January 30, 2004 are incorporated in their entirety herein by reference.

Fung neither discloses nor suggests the claimed features of a <u>host channel adapter</u>, let alone a host channel adapter configured for storing in a table, <u>each access cycle</u> by a retransmission manager, <u>entries</u> identifying <u>respective packets</u>, as claimed.

In particular, Fung et al. neither discloses nor suggests a host channel adapter, but rather discloses a transaction interface 210 configured for implementing an IEEE 1394 ("FireWire") transaction layer (col. 5, lines 60-61; see also, e.g., col. 1, lines 56-61; col. 2, lines 16-52, col. 4, lines 34-51; and 46-55).

Contrary to the assertions of the Final Action, the transaction interface 210 does <u>not</u> disclose the claimed host channel adapter. As disclosed in the specification, the claimed host channel adapter is configured for implementing transport layer services such as TCP/IP based protocols in hardware, for example according to the InfiniBand™ Architecture Specification (see, e.g., page 1, lines 22-26 of the specification). In contrast, as disclosed in Figure 2 of Fung et al., the Transaction Interface 210 is configured for implementing only operations <u>below</u> the transport layer 80, namely the IEEE 1394 layers including transaction layer 10, the link layer 20, and the physical layer 30 (see col. 4, lines 34-51 and col. 5, lines 60-61).

The broadest reasonable interpretation cannot be inconsistent with the specification, which illustrates the claimed host channel adapter (see, e.g., Figure 1). Hence, "claims are not to

be read in a vacuum, and limitations therein are to be interpreted in light of the specification in giving them their 'broadest reasonable interpretation.'" MPEP § 2111.01 at 2100-37 (Rev. 1, Feb. 2000) (quoting In re Marosi, 218 USPQ 289, 292 (Fed. Cir. 1983)(emphasis in original)). Further, as acknowledged in §2111.02 of the MPEP, "[a]ny terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation." MPEP, Rev. 1, Feb. 2003, p. 2100-49 (citing Corning Glass Works v. Sumitomo Elec. U.S.A., Inc., 868 F.2d 1251, 1257, 9 USPQ2d 1962, 1966 (Fed. Cir. 1989); Pac-Tec Inc. v. Amerace Corp., 903 F.2d 796, 801, 14 USPQ2d 1871, 1876 (Fed. Cir. 1990); In re Stencel, 828 F.2d 751, 4 USPQ2d 1071 (Fed. Cir. 1987)).

Moreover, Fung et al. neither discloses nor suggests the claimed storing in a table, each access cycle by a retransmission manager, entries identifying respective packets, as claimed. Rather, Fung et al discloses that the Transaction Interface 210 stores Transacation Memory Control (TMC) blocks on a per-transaction basis (col. 8, lines 16-17 and col. 11, lines 15 to col. 12, line 2): transactions are processed by the "transaction layer" 10, and each transaction involves a plurality of data packets (see col. 2, lines 16-28, col. 4, lines 34-51, and col. 6, lines 25-27 and 46-55).

Moreover, Fung et al. describes with respect to Figure 5A that each transaction has a corresponding stored TMC block 310. Moreover, Fung et al. describes that:

> Every time the Transaction Interface 210 receives a transaction response from the node to which the data packet was sent, the Transaction Interface decrements the transaction_count. In this way, the Transaction Interface 210 always knows how many outstanding transaction responses for which it is waiting.

(Col. 11, lines 44-51).

Hence, Fung et al. does not disclose storing entries on a per packet basis (i.e., "entries identifying respective packets"), let alone storing the entries each access cycle, as claimed. Moreover, Fung et al. does not disclose resetting an acknowledgement waiting bit for a selected one of the entries, but rather decrements the transaction count field ("transaction_count") of Figure 5A (Word 0, bits 0-3).

Further, col. 17, lines 40-50 merely specify that a retry count field is incremented each time the transaction interface attempts a retry until a limit is reached:

> The "retry count" field is incremented each time the transaction interface attempts a retry. Once the retry count field equals the "retry_count" contained in word 2, bits 8-10 of the TMC block 310, no more retries takes place and the Transaction Interface 210 terminates the current transaction. An error is then reported to the requesting task. Once the error is reported, the retry count field of the data structure 350 is reset to an initial value. Finally, the default queue head pointer of each element is stored in the last field for each element. Values in this data structure 350 are updated by the Transaction Interface 210 during normal operation.

Hence, Fung et al. neither disclose nor suggest the claimed features of storing, each access cycle, a plurality of entries that identify respective packets, wherein the packets have been transmitted during said each access cycle according to a service protocol requiring an acknowledgement message receipt within a prescribed time interval, as claimed. Rather, Fung et al. merely discloses a timer used to track a transaction timeout: the Transaction Interface will continue to retry sending the data so long as the the number of retries is below the value specified in the retry count field.

Independent claims 1 and 8, however, specify storing the entries each access cycle that identify the packets that were transmitted during said each access cycle: as illustrated in Figure 2, the four entries associated QP number "100" are written at the end of the first access cycle N1, and the two entries associatted with the QP number "256" are written at the end of the second access cycle N2 (see, e.g., page 10, lines 17-25 and page 11, lines 5-8).

Hence, Fung et al. neither discloses an access cycle, as claimed, where entries are stored in groups based on a given access cycle, as claimed.

Hence, the §102 rejection of independent claims 1 and 8 should be withdrawn because Fung et al. fails to disclose each and every limitation of the claims. See MPEP 2131. "The identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). "Anticipation cannot be predicated on teachings in the reference which are vague or based on

conjecture." Studiengesellschaft Kohle mbH v. Dart Industries, Inc., 549 F. Supp. 716, 216 USPQ 381 (D. Del. 1982), aff'd., 726 F.2d 724, 220 USPQ 841 (Fed. Cir. 1984).

Moreover, the Official Action is legally deficient because it fails to identify how Fung discloses each and every limitation of claims 11 and 12.

In particular, the Official Action merely states that "Fung further discloses the storing into the table after the defined prescribed number of clock cycles (e.g., col. 14, lines 35-39, "delay")."

However, claims 11 and 12 also specify "storing by the retransmission manager said entries, in a single storage transaction, into the table after said prescribed number of clock cycles." (See claim 11). Hence, claims 11 and 12 specify that the multiple entries for the respective packets are stored in a single storage transaction. As described in the specification at page 10, lines 17-25, the claimed storage in a single storage transaction enables the memory size to be reduced. Hence, the §102 rejection is per se improper because it fails to address these claim limitations.

Further, Fung et al. neither discloses nor suggests these features: Fung et al. requires that the same TMC block 310 be accessed for each and every transmission of a data packet or receipt of a transaction response for a corresponding data packet (col. 11, lines 43-51). Hence, Fung et al. neither dislocses nor suggests storing multiple entries in a single storage transaction, as claimed.

For these and other reasons, the §102 rejection of claims 11 and 12 should be withdrawn.

In view of the above, it is believed this application is and condition for allowance, and such a Notice is respectfully solicited.

To the extent necessary, Applicant petitions for an extension of time under 37 C.F.R. 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including any missing or insufficient fees under 37 C.F.R. 1.17(a), to Deposit Account No. 50-0687, under Order No. 95-391, and please credit any excess fees to such deposit account.

Respectfully submitted,

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